AIR QUALITY PERMIT`

Issued To: Schellinger Construction Company, Inc.
P.O. Box 39
Columbia Falls, MT 59912-0039

Permit #3257-03
Application Complete: 02/02/07
Preliminary Determination Issued: 03/09/07
Department Decision Issued: 03/27/07
Permit Final: 04/12/07
AFS Number: 777-3257

An air quality permit, with conditions, is hereby granted to Schellinger Construction Company, Inc. (Schellinger) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Schellinger operates a portable crushing plant that may operate at various locations throughout Montana. Permit #3257-03 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, those areas considered Tribal Lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Addendum 3 applies to the Schellinger facility while operating at any location in or within 10 km of a PM_{10} nonattainment area. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On February 2, 2007, the Department received a request from Schellinger for a modification to Permit #3257-02. Schellinger requested to increase the production limit on the screen from 250 tons per hour (TPH) to 450 TPH.

Section II: Conditions and Limitations

A. Emission Limitations

1. Schellinger shall not cause or authorize to be discharged into the atmosphere from any Standards of Performance for New Stationary Source (NSPS) affected crusher any visible emissions that exhibit an opacity of 15% or greater averaged over six-consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

2. Schellinger shall not cause or authorize to be discharged into the atmosphere from any other NSPS affected equipment, such as screens or conveyor transfers, any visible emissions that exhibit an opacity of 10% or greater averaged over six-consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

3. Schellinger shall not cause or authorize to be discharged into the atmosphere, from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over six-consecutive minutes (ARM 17.8.308 and ARM 17.8.752).

4. Schellinger shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

5. Schellinger shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.752).

6. Water spray bars shall be available on site at all times, and used, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1 and II.A.2 (ARM 17.8.752).

7. The generator used with this facility shall not have a designated capacity greater than 520-kilowatts (kW) (ARM 17.8.749).

8. Schellinger shall not operate more than one crusher at any given time and the maximum rated design capacity of the crusher shall not exceed 250 TPH (ARM 17.8.749).

9. Crushing production is limited to 2,190,000 tons during any rolling 12-month time period (ARM 17.8.749).

10. Schellinger shall not operate more than one screen at any given time and the maximum rated design capacity of the screen shall not exceed 450 TPH (ARM 17.8.749).

11. Screening production is limited to 3,942,000 tons during any rolling 12-month time period (ARM 17.8.749).

12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Schellinger, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

13. Schellinger shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Sections II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).

2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).

2. Schellinger shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Schellinger shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by Schellinger as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

4. Schellinger shall document, by month, the crushing and screening production from the facility. By the 25th day of each month, Schellinger shall calculate the total amount of material crushed and screened during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Sections II.A.9 and II.A.11. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).

5. Schellinger shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

A. Inspection – Schellinger shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Schellinger fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Schellinger of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If the Board does not issue a stay, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Schellinger may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

J. Schellinger shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas that have a Department approved permitting program.

PERMIT ANALYSIS
Schellinger Construction Company, Inc.
Permit #3257-03

I. Introduction/Process Description

A. Permitted Equipment

The Schellinger Construction Company, Inc. (Schellinger), facility consists of a jaw crusher (maximum capacity 250 tons per hour (TPH)), an attached 3-deck screen (maximum capacity 450 TPH), a diesel generator (up to 520 kilowatts (kW)), and associated equipment.

B. Source Description

For a typical operational setup, unprocessed materials are loaded into the jaw crusher then conveyed onto the 3-deck screen. From the 3-deck screen, the materials are conveyed to stockpiles. The crushed and sized materials are stockpiled and used for construction operations.

C. Permit History

On June 4, 2003, Schellinger was issued **Permit #3257-00** for the construction and operation of a portable crushing and screening operation. In addition, the permit contained **Addendum 1**. The permit and addendum allowed the facility to operate at various locations within Montana, including certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas.

On March 17, 2004, the Department of Environmental Quality (Department) issued a permit amendment to Schellinger to add three additional sites to the list in the addendum of potential winter locations that Schellinger may use. The Department updated the addendum to reflect the request. In addition, the Department added language to the addendum that would allow Schellinger to propose additional winter sites without needing an administrative amendment to add the sites. **Permit #3257-03** replaced Permit #3257-00 and **Addendum 2** replaced Addendum 1.

Schellinger requested the Department to update Permit #3257-01 to reflect the current emission factors, to update the emissions inventory, to include current Department language regarding spray bar requirements, and to include additional pits for winter season operations. The Department updated Schellinger's permit as requested. **Permit #3257-02** replaced Permit #3257-01 and **Addendum 2** replaced Addendum 1.

D. Current Permit Action

On February 2, 2007, the Department received a request from Schellinger for a modification to Permit #3257-02. Schellinger requested to increase the production limit on the screen from 250 TPH to 450 TPH. **Permit #3257-03** will replace Permit #3257-02 and **Addendum 3** will replace Addendum 2.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 -General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   Schellinger shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate
5. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Schellinger must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Schellinger shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

4. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR 60, NSPS, shall comply with the standards and provisions of 40 CFR 60. In order for a crushing/screening plant to be subject to 40 CFR 60, Subpart OOO requirements, two specific criteria must be met. First the crushing/screening plant must meet the definition of an affected facility and second, the equipment in question must have been constructed or modified after August 31, 1983. Based on the information submitted by Schellinger, the crushing/screening equipment to be used with Permit #3257-03 is not subject to NSPS requirements because the crusher and attached screen were constructed prior to the NSPS trigger date (40 CFR 60, Subpart A General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants).

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Schellinger submitted the appropriate application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter or use any asphalt plant, crusher or screen that has a Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Schellinger has a PTE greater than 15 tons per year of particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and nitrogen oxides (NO_x); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permit--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. Schellinger submitted the appropriate application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Schellinger submitted an affidavit of publication of public notice for the November 26, 2006, issue of the Daily Interlake, a newspaper of general publication in Kalispell, Montana, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to

install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The BACT analysis description is contained in Section IV of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Schellinger of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

11. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

12. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

13. ARM 17.8.765 Transfer of Permit. (1) A Montana air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location including written notice of Intent to Transfer location on forms provided by the Department; and documentation that the permittee has published notice of intended transfer by means of a legal publication in a newspaper of general circulation in the area to which the transfer is to be made. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality,

including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

   This facility is not a major stationary source because it is not a listed source and does not have a PTE greater than 250 tons per year of any air pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons/year of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3257-03 for Schellinger, the following conclusions were made:

   a. The facility's PTE is less than 100 tons/year for any pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is not subject to any current NSPS.

   e. This facility is not subject to any current NESHAP standards.

   f. This source is not a Title IV affected source or a solid waste combustion unit.

   g. This source is not an EPA designated Title V source.

   Based on these facts, the Department determined that Schellinger will be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or altered source. Schellinger shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A. Area Source Fugitive PM/PM_{10} Emissions and Crushing/Screening PM/PM_{10} Emissions

Two types of emissions controls are readily available and used for dust suppression of fugitive emissions at the site, fugitive emissions for the surrounding area of operations, and for equipment emissions from the crushing/screening operation. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used for dust suppression on the area surrounding the crushing/screening operation and for emissions from the crushing/screening operation. However, because water is more readily available, is more cost effective, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. However, Schellinger may use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area where it would assist in reducing emissions of particulate matter.

Schellinger shall not cause or authorize to be discharged into the atmosphere from any crusher, screen, or associated equipment, not subject to NSPS, any visible emissions that exhibit an opacity of 20% or greater averaged over six consecutive minutes. Further, Schellinger shall not cause or authorize to be discharged into the atmosphere from any NSPS affected crusher any visible emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes and shall not cause or authorize to be discharged into the atmosphere from any other associated NSPS affected equipment, such as screens and material conveyors, any visible emissions that exhibit an opacity of 15% or greater averaged over six consecutive minutes. Schellinger must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. Schellinger is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. Schellinger may also use chemical dust suppression to maintain compliance with emissions limitations in Section I.A of Permit #3872-00. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing/screening operation.

B. Diesel Generators

Because of the limited amount of emissions produced by the diesel generators and the lack of readily available and cost effective add-on controls, add-on controls would be cost prohibitive for the proposed project. Therefore, the Department determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel generators in this case.

The control options required for the proposed crushing/screening facility and for the diesel generators/engines that would be used to power the facility are similar to other recently permitted similar sources.

IV. Emission Inventory

	Ton/yr					
Source	**PM**	**PM_{10}**	**NO_x**	**VOC**	**CO**	**SO_x**
Crusher (up to 250 TPH)	1.31	0.61				
3-deck screen (up to 450 TPH)	2.41	1.45				
Material transfer	1.38	0.46				
Pile forming	18.92	8.89				
Bulk loading	0.39	0.39				
Diesel generator (up to 520-kW)	2.14	2.14	94.68	2.17	16.80	24.71
Haul roads	12.68	3.60				
Total	**39.23**	**17.54**	**94.68**	**2.17**	**16.80**	**24.71**

Crusher (up to 250 tons/hour total maximum capacity)

Maximum Process Rate: 250 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:
- Emission Factor: 0.0012 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
- Hourly Calculations: 0.0012 lbs/ton * 250 ton/hr = 0.30 lb/hr
- Daily Calculations: 0.30 lb/hr * 24 hr/day = 7.20 lb/day
- Annual Calculations: 0.30 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.31 ton/yr

PM_{10} Emissions:
- Emission Factor: 0.00054 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
- Hourly Calculations: 0.00054 lb/ton * 250 ton/hr = 0.14 lb/hr
- Daily Calculations: 0.14 lb/hr * 24 hr/day = 3.24 lb/day
- Annual Calculations: 0.14 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.61 ton/yr

Screen (up to 450 tons/hour total maximum capacity)

Process Rate: 450 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:
- Emission Factor: 0.0022 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
- Hourly Calculations: 0.0022 lb/ton * 450 ton/hr = 0.99 lb/hr
- Daily Calculations: 0.99 lb/hr * 24 hr/day = 23.76 lb/day
- Annual Calculations: 0.99 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.34 ton/yr

PM_{10} Emissions:
- Emission Factor: 0.00074 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
- Hourly Calculations: 0.00074 lb/ton * 450 ton/hr = 0.33 lb/hr
- Daily Calculations: 0.33 lb/hr * 24 hr/day = 7.99 lb/day
- Annual Calculations: 0.33 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.45 ton/yr

Diesel Generator

Generator Size = up to 520 kW
1kW = 1.341 hp
1000 kW * 1.341 = 697.3 hp

Hours of operation: 8760 hr/yr – or – 24 hr/day

PM Emissions
- Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
- Hourly Calculations: 697.3 hp * 0.0007 lb/hp-hr = 0.49 lb/hr
- Daily Calculations: 697.3 hp * 0.0007 lb/hp-hr * 24 hr/day = 11.71 lb/day
- Annual Calculation: 697.3 hp * 0.0007 * 8760 hr/yr * 0.0005 lb/ton = 2.14 ton/yr

PM_{10} Emissions:
- Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)

Hourly Calculations: 697.3 hp * 0.0007 lb/hp-hr = 0.49 lb/hr
Daily Calculations: 697.3 hp * 0.0007 lb/hp-hr * 24 hr/day = 11.71 lb/day
Annual Calculation: 697.3 hp * 0.0007 * 8760 hr/yr * 0.0005 lb/ton = 2.14 ton/yr

NOx Emissions:
Emission Factor: 0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 697.3 hp * 0.031 lb/hp-hr = 21.62 lb/hr
Daily Calculations: 697.3 hp * 0.031 lb/hp-hr * 24 hr/day = 518.79 lb/day
Annual Calculation: 697.3 hp * 0.031 * 8760 hr/yr * 0.0005 lb/ton = 94.68 ton/yr

VOC Emissions:
Emission Factor: 0.00071 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 697.3 hp * 0.00071 lb/hp-hr = 0.50 lb/hr
Daily Calculations: 697.3 hp * 0.00071 lb/hp-hr * 24 hr/day = 11.88 lb/day
Annual Calculation: 697.3 hp * 0.00071 * 8760 hr/yr * 0.0005 lb/ton = 2.17 ton/yr

CO Emissions:
Emission Factor: 0.0055 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 697.3 hp * 0.0055 lb/hp-hr = 3.84 lb/hr
Daily Calculations: 697.3 hp * 0.0055 lb/hp-hr * 24 hr/day = 92.04 lb/day
Annual Calculation: 697.3 hp * 0.0055 * 8760 hr/yr * 0.0005 lb/ton = 16.80 ton/yr

SOx Emissions:
Emission Factor: 0.00809 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 697.3 hp * 0.00809 lb/hp-hr = 5.64 lb/hr
Daily Calculations: 697.3 hp * 0.00809 lb/hp-hr * 24 hr/day = 135.39 lb/day
Annual Calculation: 697.3 hp * 0.00809 * 8760 hr/yr * 0.0005 lb/ton = 24.71 ton/yr

Material Transfer

Process Rate: 450 ton/hr
Number of Transfers 5 transfers
Hours of operation: 8760 hr/yr

PM Emissions:
Emission Factor: 0.00014 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00014 lb/ton * 450 ton/hr * 5= 0.315 lb/hr
Daily Calculations: 0.315 lb/hr * 24 hr/day = 7.56 lb/day
Annual Calculations: 0.315 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.38 ton/yr

PM_{10} Emissions:
Emission Factor: 0.000046 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.000046 lb/ton * 450 ton/hr * 5= 0.104 lb/hr
Daily Calculations: 0.104 lb/hr * 24 hr/day = 2.50 lb/day
Annual Calculations: 0.104 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.456 ton/yr

Pile Forming

Process Rate: 450 ton/hr
Number of Piles 3 piles
Hours of operation: 8760 hr/yr

PM Emissions:
Emission Factor: 0.0032 lb/ton (controlled) (AP-42, Section 13.2.4, 1/95)
Hourly Calculations: 0.0032 lb/ton * 450 ton/hr * 3 piles= 4.32 lb/hr
Daily Calculations: 4.32 lb/hr * 24 hr/day = 103.68 lb/day
Annual Calculations: 4.32 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 18.92 ton/yr

PM_{10} Emissions:
Emission Factor: 0.0015 lb/ton (controlled) (AP-42, Section 13.2.4, 1/95)
Hourly Calculations: 0.0015 lb/ton * 450 ton/hr * 3 piles = 2.03 lb/hr
Daily Calculations: 2.03 lb/hr * 24 hr/day = 48.6 lb/day
Annual Calculations: 2.03 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.89 ton/yr

Bulk Loading

Process Rate: 450 ton/hr
Number of Loads 2 load
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor:	0.0001 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0001 lb/ton * 450 ton/hr * 2 =	0.09 lb/hr
Daily Calculations:	0.09 lb/hr * 24 hr/day =	2.16 lb/day
Annual Calculations:	0.09 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.39 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0001 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0001 lb/ton * 450 ton/hr *2 =	0.09 lb/hr
Daily Calculations:	0.09 lb/hr * 24 hr/day =	2.16 lb/day
Annual Calculations:	0.09 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.39 ton/yr

Haul Roads

Vehicle miles traveled: 5 VMT/day {Estimated}
Assumption: Rated Load Capacity < 50 tons
Hours of Operation: 8760 hr/yr
24 hr/day
365 day/yr

PM Emissions:

Emission Factor:	13.90 lb/VMT	
Calculations:	5.0 VMT/day * 13.90 lb/VMT =	69.50 lb/day
	69.50 lb/day * 365 day/yr * 0.0005 ton/lb =	12.68 ton/yr

PM_{10} Emissions:

Emission Factor:	3.95 lb/VMT	
Calculations:	5 VMT/day * 3.95 lb/VMT =	19.75 lb/day
	19.75 lb/day * 365 day/yr * 0.0005 ton/lb =	3.60 ton/yr

V. Existing Air Quality

Permit #3257-03 allows the operation of the Schellinger equipment at various locations throughout Montana. The areas covered by Permit #3257-03 are designated as attainment/unclassified for the ambient air quality standards. Addendum 3 to Permit #3257-03 will allow Schellinger to operate in certain PM_{10} nonattainment areas during both the summer and winter months.

VI. Ambient Air Quality Impact Analysis

The Department determined, based on the relatively small amount of emissions resulting from the Schellinger operation and the limits and conditions that would be included in Permit #3257-03, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

Addendum 3
Schellinger Construction Company, Inc.
Permit #3257-03

An Addendum to air quality Permit #3257-03 is issued to Schellinger Construction Company, Inc. (Schellinger) pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

Schellinger applied for an addendum to Permit #3257 for the operation of a portable crushing/screening operation in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas including but not limited to: Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte.

II. Seasonal and Site Restrictions

Addendum 3 applies to the Schellinger facility while operating at any location in or within 10 km of certain PM_{10} nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

A. During the winter season (October 1-March 31) - The only location(s) in or within 10 km of a PM_{10} nonattainment area where Schellinger may operate is:

1. N½ of Section 21, Township 30 North, Range 21 West (Carlson Pit);
2. NE¼ of the SW¼ of Section 23, Township 30 North, Range 21 West (A-1 Paving Hodgson Road Pit);
3. NE¼ of the NE¼ of Section 26, Township 29 North, Range 22 West (Tutvedt Pit);
4. NW¼ of the NW¼ of Section 31, Township 29 North, Range 21 West (NUPAC Pit);
5. NW¼ of the NW¼ of Section 22, Township 29 North, Range 21 West (A-1 Paving Pit);
6. S½ of the SE¼ of Section 31, Township 31 North, Range 22 West (Peschel Pit);
7. NE¼ and SE¼ of the NW¼ of Section 9, Township 27 North, Range 21 West (Spoklie Pit);
8. NW¼ of the SE¼ of Section 36, Township 30 North, Range 21 West (County Pit);
9. NW¼ of the SE¼ and NE¼ of the SW¼ of Section 36, Township 30 North, Range 21 West (Jellison Pit);
10. SE¼ of the NW¼ of Section 11, Township 30 North, Range 20 West (Columbia Heights Pit);
11. Section 17, Township 29, Range 22 West (Beasley Pit);
12. NW¼ of Section 16, Township 29 North, Range 22 West (Tutvedt Pit 2) and
13. Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).

B. During the summer season (April 1-September 30) – Schellinger may operate at any location in or within 10 km of the Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte PM_{10} nonattainment areas.

C. Schellinger shall comply with the limitations and conditions contained in Addendum 3 to Permit #3257-03 while operating in or within 10 km of any of the previously listed PM_{10} nonattainment areas. Addendum 3 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum 3 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Conditions and Limitations

A. Operational Conditions and Limitations – **Winter & Summer Seasons**

1. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over six-consecutive minutes (ARM 17.8.749).

2. Schellinger shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over six-consecutive minutes (ARM 17.8.749).

3. Water spray bars shall be available, on site at all times, and operated, as necessary, on the crushers, screens, and all material transfer points to maintain compliance with the opacity limitations in Sections, III.A.2 and III.A.3 (ARM 17.8.749).

4. Schellinger shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over six-consecutive minutes (ARM 17.8.749).

5. Schellinger shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation in Section III.A.4 (ARM 17.8.749).

6. Total crushing production of all crushers shall not exceed 6,000 tons during any rolling 24-hour time period (ARM 17.8.749).

7. Total screening production of all screens shall be limited to 10,800 tons during any rolling 24-hour time period (ARM 17.8.749).

8. The generator used with this facility shall not have a designated capacity greater than 520-kilowatts (kW) (ARM 17.8.749).

B. Operational Reporting Requirements

1. Schellinger shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).

2. Schellinger shall provide the Department with written notice of relocation of the permitted equipment within 15 working days before the physical transfer of the equipment (ARM 17.8.765).

3. Production information for the sites covered by this addendum must be submitted to the Department with the annual emission inventory request or within 30 days of completion of the project. The information must include (ARM 17.8.749):

   a. Tons of material crushed

   b. Tons of material screened

   c. Tons of bulk material loaded

   d. Daily hours of operation

   e. Gallons of diesel fuel used for the generator

   f. Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:

      i. Number of vehicles
      ii. Vehicle type
      iii. Vehicle weight, loaded
      iv. Vehicle weight, unloaded
      v. Number of tires on vehicle
      vi. Average trip length
      vii. Number of trips per day per vehicle
      viii. Average vehicle speed
      ix. Area of activity
      x. Vehicle fuel usage (gasoline or diesel) annual total

   g. Fugitive dust control for haul roads and the general plant area:

      i. Hours of operation of water trucks
      ii. Application schedule for chemical dust suppressant, if applicable

4. Schellinger shall document, by day, the total crushing and screening production. Schellinger shall sum the total crushing and screening production during the previous 24 hours to verify compliance with the limitation in Sections III.A.6. and III.A.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).

Addendum 3 Analysis
Schellinger Construction Company, Inc.
Permit #3257-03

I. Permitted Equipment:

Schellinger Construction Company, Inc. (Schellinger), owns and operates a portable crushing/screening facility to be operated at various locations within Montana. Equipment used at this facility includes a portable jaw crusher (up to 250 tons per hour (TPH)), a 3-deck screen (up to 450 TPH), a diesel generator (up to 520 kilowatts (kW)), and associated equipment.

II. Source Description

For a typical operational setup, unprocessed materials are loaded into the jaw crusher then conveyed onto the 3-deck screen. From the 3-deck screen, the materials are conveyed to stockpiles. The crushed and sized materials are stockpiled and used for construction operations.

III. Permit History

On June 4, 2003, Schellinger was issued **Permit #3257-00** for the construction and operation of a portable crushing and screening operation. In addition, the permit contained **Addendum 1**. The permit and addendum allowed the facility to operate at various locations within Montana, including certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas.

On February 2, 2004, the Department of Environmental Quality (Department) received a written request from Schellinger to add three additional sites to the list in the addendum of potential winter locations that Schellinger may use. The Department updated the addendum to reflect the request. In addition, the Department added language to the addendum that would allow Schellinger to propose additional winter sites without needing an administrative amendment to add the sites. **Permit #3257-01** replaced Permit #3257-00.

Schellinger requested the Department to update Permit #3257-01 to reflect the current emission factors, to update the emissions inventory, to include current Department language regarding spray bar requirements, and to include additional pits for winter season operations. The Department updated Schellinger's permit as requested. **Permit #3257-02** replaced Permit #3257-01 and **Addendum 2** replaced Addendum 1.

IV. Current Permit Action

On February 2, 2007, the Department received a request from Schellinger for a modification to Permit #3257-01. Schellinger requested to increase the production limit on the screen from 250 TPH to 450 TPH. **Permit #3257-03** will replace Permit #3257-02 and **Addendum 3** will replace Addendum 2.

V. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

B. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack which do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:

1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;

2. The source will operate in the new location for a period of less than 1 year; and

3. The source will not have any significant impact on any nonattainment area or any Class I area.

Schellinger shall submit proof of compliance with the transfer and public notice requirements when Schellinger transfers to any of the locations covered by this addendum and will only be allowed to stay in the new location for a period of less than one year. Also, the conditions and limitations in Addendum 3 to Permit #3257-03 will prevent Schellinger from having a significant impact on certain PM_{10} nonattainment areas.

VI. Emission Inventory

	Lb/Day					
Source	**PM**	**PM_{10}**	**NO_x**	**VOC**	**CO**	**SO_x**
Crusher (up to 250 TPH)	7.20	3.24				
3-deck screen (up to 450 TPH)	23.76	7.99				
Material transfer	7.56	2.50				
Pile forming	103.68	48.6				
Bulk loading	2.16	2.16				
Diesel generator (up to 520-kW)	11.71	11.71	518.79	11.88	92.04	135.39
Haul roads	4.65	2.10				
Total	**160.72**	**78.3**	**518.79**	**11.88**	**92.04**	**135.39**

- Emission Inventory for Winter and Summer Season

Crusher (up to 250 tons/hour total maximum capacity)

Maximum Process Rate: 250 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor:	0.0012 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0012 lbs/ton * 250 ton/hr =	0.30 lb/hr
Daily Calculations:	0.30 lb/hr * 24 hr/day =	7.20 lb/day
Annual Calculations:	0.30 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	1.31 ton/yr

PM_{10} Emissions:

Emission Factor:	0.00054 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.00054 lb/ton * 250 ton/hr =	0.14 lb/hr
Daily Calculations:	0.14 lb/hr * 24 hr/day =	3.24 lb/day
Annual Calculations:	0.14 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.61 ton/yr

Screen (up to 450 tons/hour total maximum capacity)

Process Rate: 450 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor:	0.0022 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0022 lb/ton * 450 ton/hr =	0.99 lb/hr
Daily Calculations:	0.99 lb/hr * 24 hr/day =	23.76 lb/day
Annual Calculations:	0.99 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	4.34 ton/yr

PM_{10} Emissions:

Emission Factor:	0.00074 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.00074 lb/ton * 450 ton/hr =	0.33 lb/hr
Daily Calculations:	0.33 lb/hr * 24 hr/day =	7.99 lb/day
Annual Calculations:	0.33 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	1.45 ton/yr

Diesel Generator

Generator Size = up to 520 kW
1kW = 1.341 hp
1000 kW * 1.341 = 697.3 hp

Hours of operation: 8760 hr/yr – or – 24 hr/day

PM Emissions

Emission Factor:	0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations:	697.3 hp * 0.0007 lb/hp-hr = 0.49 lb/hr
Daily Calculations:	697.3 hp * 0.0007 lb/hp-hr * 24 hr/day = 11.71 lb/day
Annual Calculation:	697.3 hp * 0.0007 * 8760 hr/yr * 0.0005 lb/ton = 2.14 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations:	697.3 hp * 0.0007 lb/hp-hr = 0.49 lb/hr
Daily Calculations:	697.3 hp * 0.0007 lb/hp-hr * 24 hr/day = 11.71 lb/day
Annual Calculation:	697.3 hp * 0.0007 * 8760 hr/yr * 0.0005 lb/ton = 2.14 ton/yr

NOx Emissions:

Emission Factor:	0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations:	697.3 hp * 0.031 lb/hp-hr = 21.62 lb/hr
Daily Calculations:	697.3 hp * 0.031 lb/hp-hr * 24 hr/day = 518.79 lb/day
Annual Calculation:	697.3 hp * 0.031 * 8760 hr/yr * 0.0005 lb/ton = 94.68 ton/yr

VOC Emissions:

Emission Factor:	0.00071 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations:	697.3 hp * 0.00071 lb/hp-hr = 0.50 lb/hr
Daily Calculations:	697.3 hp * 0.00071 lb/hp-hr * 24 hr/day = 11.88 lb/day
Annual Calculation:	697.3 hp * 0.00071 * 8760 hr/yr * 0.0005 lb/ton = 2.17 ton/yr

CO Emissions:

Emission Factor:	0.0055 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	697.3 hp * 0.0055 lb/hp-hr = 3.84 lb/hr	
Daily Calculations:	697.3 hp * 0.0055 lb/hp-hr * 24 hr/day = 92.04 lb/day	
Annual Calculation:	697.3 hp * 0.0055 * 8760 hr/yr * 0.0005 lb/ton = 16.80 ton/yr	

SOx Emissions:

Emission Factor:	0.00809 lb/hp-hr (AP-42, Table 3.3-1, 10/96)	
Hourly Calculations:	697.3 hp * 0.00809 lb/hp-hr = 5.64 lb/hr	
Daily Calculations:	697.3 hp * 0.00809 lb/hp-hr * 24 hr/day = 135.39 lb/day	
Annual Calculation:	697.3 hp * 0.00809 * 8760 hr/yr * 0.0005 lb/ton = 24.71 ton/yr	

Material Transfer

Process Rate:	450 ton/hr
Number of Transfers	5 transfers
Hours of operation:	8760 hr/yr

PM Emissions:

Emission Factor:	0.00014 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.00014 lb/ton * 450 ton/hr * 5=	0.315 lb/hr
Daily Calculations:	0.315 lb/hr * 24 hr/day =	7.56 lb/day
Annual Calculations:	0.315 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	1.38 ton/yr

PM_{10} Emissions:

Emission Factor:	0.000046 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.000046 lb/ton * 450 ton/hr * 5=	0.104 lb/hr
Daily Calculations:	0.104 lb/hr * 24 hr/day =	2.50 lb/day
Annual Calculations:	0.104 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.456 ton/yr

Pile Forming

Process Rate:	450 ton/hr
Number of Piles	3 piles
Hours of operation:	8760 hr/yr

PM Emissions:

Emission Factor:	0.0032 lb/ton (controlled) (AP-42, Section 13.2.4, 1/95)	
Hourly Calculations:	0.0032 lb/ton * 450 ton/hr * 3 piles=	4.32 lb/hr
Daily Calculations:	4.32 lb/hr * 24 hr/day =	103.68 lb/day
Annual Calculations:	4.32 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	18.92 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0015 lb/ton (controlled) (AP-42, Section 13.2.4, 1/95)	
Hourly Calculations:	0.0015 lb/ton * 450 ton/hr * 3 piles =	2.03 lb/hr
Daily Calculations:	2.03 lb/hr * 24 hr/day =	48.6 lb/day
Annual Calculations:	2.03 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	8.89 ton/yr

Bulk Loading

Process Rate:	450 ton/hr
Number of Loads	2 load
Hours of operation:	8760 hr/yr

PM Emissions:

Emission Factor:	0.0001 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0001 lb/ton * 450 ton/hr * 2 =	0.09 lb/hr
Daily Calculations:	0.09 lb/hr * 24 hr/day =	2.16 lb/day
Annual Calculations:	0.09 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.39 ton/yr

PM_{10} Emissions:

Emission Factor:	0.0001 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0001 lb/ton * 450 ton/hr *2 =	0.09 lb/hr
Daily Calculations:	0.09 lb/hr * 24 hr/day =	2.16 lb/day
Annual Calculations:	0.09 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.39 ton/yr

Haul Roads

Vehicle miles traveled:	5 VMT/day {Estimated}	
Assumption:	Rated Load Capacity < 50 tons	
Hours of Operation:	8760 hr/yr	
	24 hr/day	
	365 day/yr	
PM Emissions:		
Emission Factor:	13.90 lb/VMT	
Calculations:	5.0 VMT/day * 13.90 lb/VMT =	69.50 lb/day
	69.50 lb/day * 365 day/yr * 0.0005 ton/lb =	12.68 ton/yr
PM_{10} Emissions:		
Emission Factor:	3.95 lb/VMT	
Calculations:	5 VMT/day * 3.95 lb/VMT =	19.75 lb/day
	19.75 lb/day * 365 day/yr * 0.0005 ton/lb =	3.60 ton/yr

VII. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM_{10}. Due to exceedances of the national standards for PM_{10}, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM_{10}. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM_{10} State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM_{10} emissions.

Addendum 3 to Permit #3257-03 is for a portable crushing/screening plant to locate at sites in or within 10 km of certain PM_{10} nonattainment areas during the summer and winter seasons. Summer season (April 1 through September 30) may include locations in or within 10 km of the butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM_{10} nonattainment areas. Winter season (October 1 through March 31) operations may include only the locations listed in Section II.A of Addendum 3.

VIII. Air Quality Impacts

Permit #3257-03 and Addendum 3 will cover the Schellinger crushing/screening plant while operating at any location within Montana, excluding those counties that have a department approved permitting program and those areas considered tribal lands and locations in or within 10 km of a PM_{10} nonattainment area. Based on the information provided, the Department believes the amount of controlled emissions generated by this facility will not exceed any ambient air quality standard. In addition, this source is portable and any air quality impacts will be minimal.

IX. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

X. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Schellinger Construction Company, Inc.

Air Quality Permit number: 3257-03

Preliminary Determination Issued: March 9, 2007
Department Decision Issued: March 27, 2007
Permit Final: April 12, 2007

1. Legal Description of Site: Schellinger submitted an application to operate a crushing/screening plant at various locations throughout Montana. Permit #3257-03 would apply to the source while operating at any location in Montana, except within those areas having a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM_{10} nonattainment areas. A Missoula County air quality permit would be required for locations within Missoula County, Montana. Schellinger would be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM_{10} nonattainment areas.

2. Description of Project: Schellinger proposes a modification to permit #3257-02 to increase the production limit on the screen from 250 TPH to 450 TPH.

3. Objectives of Project: The object of the project would be to increase production for business and revenue for the company through the sale and use of aggregate. The issuance of Permit #3257-03 would allow Schellinger to operate the permitted equipment at various locations throughout Montana.

4. Alternatives Considered: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Schellinger has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. A Listing of Mitigation, Stipulations, and Other Controls: A list of enforceable conditions, including a BACT analysis, would be included in Permit #3257-03.

6. Regulatory Effects on Private Property: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials would use the same area as the crushing and screening operation. The crushing and screening operation would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be used for pollution control. Since only a minor amount of additional air emissions would be generated, only minor deposition would occur. Therefore, only minor and temporary effects to aquatic life and habitat would be expected from the proposed crushing/screening operation.

B. Water Quality, Quantity and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. However, water use would only cause a minor impact to the water quality, quantity, and distribution in the area, since only small amounts of water would be required to control air pollutant emissions and deposition of air pollutants (as described in Section 7.F of this EA).

C. Geology and Soil Quality, Stability and Moisture

Because the modification would slightly increase emissions and the facility would typically operate in areas previously designated and used for aggregate crushing, impacts from the emissions from the crushing facility would be minor.

The crushing and screening operation would have only minor impacts on soils in any proposed site location (due to the construction and use of the crushing facility) because the facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Therefore, any affects upon geology and soil quality, stability, and moisture at any proposed operational site would be minor.

D. Vegetation Cover, Quantity, and Quality

Because the modification would slightly increase emissions and the facility would typically operate in areas previously designated and used for aggregate crushing, impacts from the emissions from the crushing and screening facility would be minor.

As described in Section 7.F of this EA, the amount of air emissions from this facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal, as described in Section 7.B, and the associated soil disturbance is minimal, as described in Section 7.C, corresponding vegetative impacts would be minor.

E. Aesthetics

The crushing and screening operation would be visible and would create additional noise while operating in these areas. However, Permit #3257-03 would include conditions to control emissions, including visible emissions, from the plant. Also, because the crushing and screening operation is portable, would operate on an intermittent and seasonal basis, and would typically locate within an open-cut pit, any visual and noise impacts would be minor and short-lived. Therefore, impacts to the aesthetics of the area would be minor.

F. Air Quality

The air quality impacts from the crushing and screening operations would be minor because the facility is relatively small and this modification would only increase emissions slightly. Permit #3257-03 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, Permit #3257-03 would limit total emissions from the crushing and screening operation and any additional Schellinger equipment operated at the site to 250 tons/year or less, excluding fugitive emissions.

This facility would be used on a temporary and intermittent basis, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the crushing/screening operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction) and would have minimal deposition on the surrounding area. Therefore, air quality impacts would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

Given the relatively small size of the facility, the probability that the facility would locate in a previously disturbed area, and the temporary and portable nature of the operations, any impacts would be minor and short-lived. Additionally, operational conditions and limitations within Permit #3257-03 would aid in the protection of these resources by protecting the surrounding environment. Therefore, impacts to unique, endangered, fragile, or limited environmental resources would be minor.

H. Demands on Environmental Resource of Water, Air and Energy

Due to the size of the facility, the crushing and screening operation would require only small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression and would control particulate emissions being generated at the site. Energy requirements would also be small because the energy demands of the crushing and screening operation would be relatively small and the facility would not be used continuously. The facility would have limited production, and would have seasonal and intermittent use. In addition, impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed. Therefore, any impacts to water, air, and energy resources in any given area would be minor.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites located near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there are no previously recorded historic or archaeological sites within the proposed area. However, SHPO stated that the absence of cultural properties in the area does not mean that they do not exist, but may reflect a lack of previous cultural resource inventories in the area. The Department determined that the chance of the project impacting any historical and archaeological sites in the area would be minor due to the relatively small size of the project.

J. Cumulative and Secondary Impacts

The crushing and screening operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of PM and PM_{10}. However, additional emissions from the proposed project would be minor. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the equipment is small and the facility would be expected to operate in areas designated and used for such operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions. Overall, any cumulative or secondary impacts to the physical and biological aspects of the human environment would be minor.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity			X			Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity				X		Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The crushing and screening operation would cause no disruption to the social structures and mores in the area because the source is a minor source of emissions (by industrial standards) and would only have intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in Permit #3257-03. Thus, no native or traditional communities would be affected by the proposed project operations and no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The impact to cultural uniqueness and diversity of these areas would be minor from the proposed crushing and screening operation because the site will be located on ground previously used as irrigated hay ground and is immediately adjacent to an existing gravel pit. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. Therefore, predominant use of the surrounding areas would experience minor change as a result of this project.

C. Local and State Tax Base and Tax Revenue

The crushing and screening operation would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source (minor source) and would be used on a seasonal and intermittent basis. The facility would require the use of only a few employees. Thus, only minor, if any, impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would also be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The crushing and screening operation would have only a minor impact on local industrial production since the facility is a minor source of emissions (by industrial standards). There could be minor effects on agricultural land from the deposition of pollutants (as described in Section 7.F of this EA) but, the facility operations would be small and temporary in nature, and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation (as described in Section 7.D of this EA).

E. Human Health

Permit #3257-03 would incorporate conditions to ensure that the crushing facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other conditions that would be established in Permit #3257-03, though the facility's air emissions would be quite small without the use of pollution controls. Therefore, only minor impacts would be expected upon human health from the proposed crushing/screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

The crushing plant would typically operate within the confines of an open-cut pit. Therefore, only minor impacts upon the access to and quality of recreational and wilderness activities would result. Additionally, noise from the facility would be minor because the facility would typically operate within the confines of an existing open-cut pit. Also, the facility would operate on a seasonal and intermittent basis and would be relatively small by industrial standards. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment at a given site would be expected to be minor and intermittent.

G. Quantity and Distribution of Employment

The portable crushing and screening operation is small and would only require a few existing employees to operate. The crushing and screening operation is a small, portable source, with seasonal and intermittent operations and would not be expected to have any long-term affects upon the quantity and distribution of employment in any given area of operation. Therefore, no effects upon the quantity and distribution of employment in these areas would be expected.

H. Distribution of Population

The portable crushing and screening operation is small and would only require a few existing employees to operate. Also, no individuals would be expected to permanently relocate to a given area of operation as a result of operating the crushing facility, which would have only intermittent and seasonal operations. Therefore, the crushing facility would not disrupt the normal population distribution in a given area of operation.

I. Demands for Government Services

Minor increases would be seen in traffic on existing roadways in a given area while the crushing and screening operation is in progress. In addition, government services would be required for acquiring the appropriate permits from government agencies and determining compliance with the permits. Overall, the demands for government services would be minor.

J. Industrial and Commercial Activity

The crushing and screening operation would represent only a minor increase in the industrial activity in any given area because the source would be a minor source (relatively small in size by industrial standards) and would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would affect Schellinger. The facility would be allowed, by permit, to operate in areas designated by EPA as attainment or unclassified. Permit #3257-03 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards. Because the facility would be a small and portable source, and would have intermittent and seasonal operations, any effects from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The crushing and screening operation would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate areas of operation because the source is a portable and temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate areas, thus, having a direct effect on the social environment. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Thus, only minor and temporary cumulative effects would result to the local economy.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable crushing/screening facility. Permit #3257-03 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Julie Merkel
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